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10/047,365	01/14/2002	Karl-Heinz Dörner	Mo6657/LeA 34,814	5079

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EXAMINER

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ART UNIT	PAPER NUMBER
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1711

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/047,365
Filing Date: January 14, 2002
Appellant(s): DORNER ET AL.

Lyndanne M. Whalen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/8/2004.

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(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1-8 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,667,595	Vaverka et al.	9-1997
6,245,987	Shiomi et al.	6-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaverka et al. (US Pat. 5,667,595).

Vaverka teaches a solar module, comprising solar cells placed between a front plate and a rear support plate, and a polyurethane layer between the solar cells and each of the front and rear plates (see abstract; col. 1, ln. 7-11; claim 1). Hence, the polyurethane layers are part of the front side and the rear side.

In regards to claims 1-2, Vaverka teaches that the polyurethane to be transparent (see col. 2, ln. 50).

In regards to claim 3, Vaverka teaches that the rear side comprising a glass plate (see col. 3, ln. 28-30).

Claim Rejections - 35 USC § 103

2. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaverka as applied to claim 1 above, and further in view of Shiomi et al. (US Pat. 6,245,987).

Vaverka is as set forth in claim 1 above and incorporated herein.

Vaverka teaches the polyurethane containing various additives (see col. 3, ln. 9-10).

However, the reference does not teach the rear side being composed of opaque polyurethane, or the opaque polyurethane containing a filler, such as chalk, glass platelets, or silicates.

Shiomi teaches a solar module 100 having a rear material 107, wherein the rear material is composed of a combination of materials such as polyurethane, asphalt, glass wool, calcium silicate (see Fig. 1; col. 6, ln. 9-10; col. 10, ln. 36-38; col. 11, ln. 8-11, ln. 16-18), making the polyurethane opaque. Shiomi further that the use of these materials in the rear side would provide high thermal insulation effects, which would facilitate the annealing effect in order to enhance performance (see col. 11, ln. 18-21).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the material, as taught by Shiomi, in the rear side of Vaverka's solar module, for the purpose of improving durability, cost, and workability (see col. 10, ln. 36).

3. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaverka as applied to claim 1 above.

Vaverka is as set forth in claim 1 above and incorporated herein.

Although Vaverka does not teach the front side as having a textured surface or the rear side being in the form of cooling fins, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the front side such that it would have had a textured surface for the purpose of increasing light absorption. And having the rear side being fin-shaped would increase the surface area, enhance dissipation of heat, and hence would increase the efficiency and lifetime of the solar module. Moreover, Applicants do not disclose

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any advantages of having a front side with textured surface or the rear side with fin shape over other shapes of the surfaces.

(11) *Response to Argument*

Applicants contend that the reference of Vaverka differs from the presently claimed invention in that Vaverka does not teach a solar module containing a front side composed of transparent polyurethane, that the front side of Vaverka solar module is composed of glass.

Applicants further restate a definition of a “side”, as provided by Webster’s New Collegiate Dictionary, that a “side” is “a surface forming a border or face of an object” or “an outer portion of something considered as facing in a particular direction <the upper side of a sphere>”.

However, in addition to these definitions, the Dictionary further defines a “side” as “the right or left part of the wall or trunk of the body” or “place, space, or direction with respect to a center or to a line of division (as of an aisle, river, or street)”. As pointed out by Applicants, Vaverka teaches a solar module containing a front glass plate, a rear support plate, solar cells between the plates, and a polyether-polyurethane resin layer between the solar cells and each of the plates.

Thus, the polyurethane layers are part of the front side and the rear side of Vaverka solar module.

Therefore, the teachings of Vaverka anticipate the presently claimed invention.

In response to applicant's argument that the teachings of Shiomi and Vaverka cannot be combined because Shiomi does not teach a solar cell module having a front side composed of transparent polyurethane, applicants are reminded that Shiomi is used to illustrate that the rear side of the solar module composed of opaque polyurethane has been taught. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order

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to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977

F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

Thus, the combination of Vaverka and Shiomi would be obvious over the instant claims.


For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

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January 12, 2005

Conferees


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